

# Statewide Trauma Education Tour



**INDIANA STATE DEPARTMENT OF HEALTH**

**DIVISION OF TRAUMA  
AND INJURY PREVENTION**



Indiana State  
Department of Health

# Change of Administration



- Governor
  - Mike Pence
- State Health Commissioner
  - Dr. William C. VanNess
- Chief of Staff
  - Jim Huston
- Assistant Commissioner, Health & Human Services Commission
  - Art Logsdon

# State Department of Health's Division of Trauma and Injury Prevention Staff



- Art Logsdon
  - Assistant Commissioner, Health and Human Services Commission
- Brian Carnes
  - Director, Trauma and Injury Prevention Division
- Katie Gatz
  - Manager, Trauma Registry
- Derek Zollinger
  - Data Analyst, Trauma Registry
- TBD
  - Injury Epidemiologist
  - EMS Data Manager

# New Position: EMS Registry Candidate



- Recognizes the need for data and performance improvement
- Background as: Paramedic, EMT, nurse or other capable individual with some clinical background
- Values basic database management principles
- Understanding of NEMSIS national dataset
- Very organized with attention to detail
- Ability to help EMS providers and leadership recognize the need for quality data collection

# Mission



## Division of Trauma and Injury Prevention

### Mission:

To develop, implement and provide oversight of a statewide comprehensive trauma care system that prevents injuries, saves lives, and improves the care and outcomes of trauma victims.

# Trauma Education Tour



## Why are we here today?

- Continue listening to Hoosiers who deal with trauma everyday—that's you
- Statutory obligation to develop, implement and oversee a statewide trauma system
- Encourage EMS providers to share their data
  - Take advantage of our FREE software

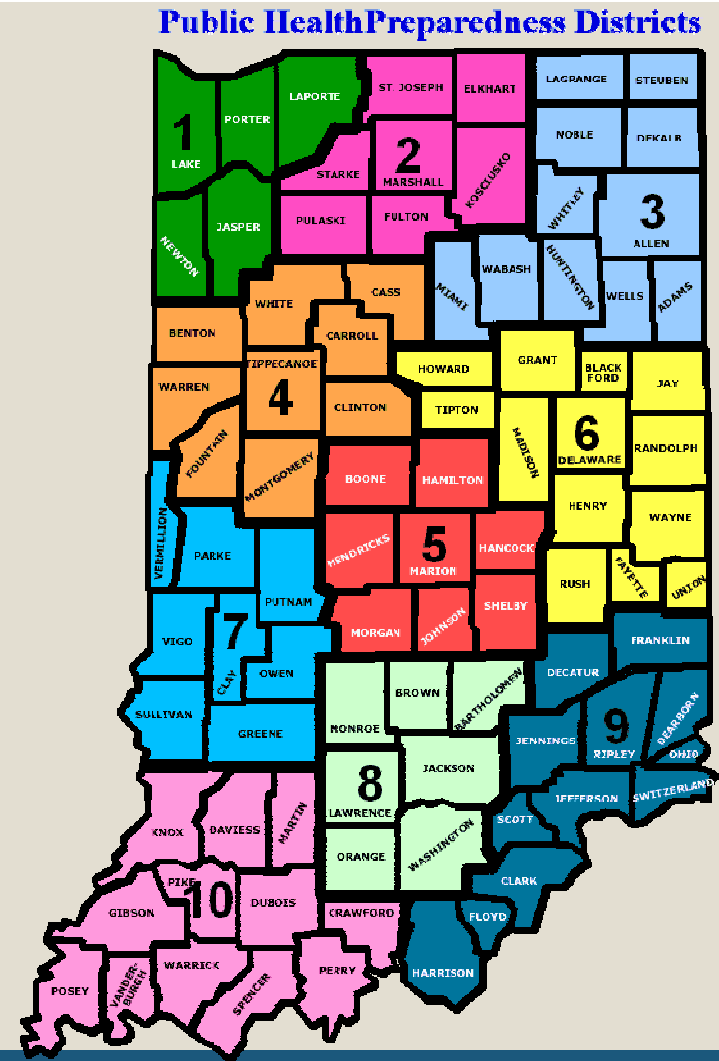
# Trauma Education Tour - Goals



- Continue to:
  - Learn more about data and your needs re: data collection and analysis
  - Learn how state and local providers can work together to better respond to trauma
  - Learn how a trauma system could better help trauma response and patient care on a day-to-day basis

# Initial Education Tour Locations

Education sessions will be held in all 10 Public Health Preparedness Districts in April and May.





# Why Now?

- Need to evaluate the **entire** trauma system
- Funding to purchase the EMS registry
- Trauma Registry Rule
- Trauma Center Designation



# Trauma Facts



- Injury – or trauma, as we often refer to it – is the No. 1 killer of Hoosiers under the age of 45.
- More than 32,000 Hoosiers are hospitalized every year from injuries, and more than 3,000 died from injuries in 2010 (the most recent year for which data is available).
- About 11 people per day died from injuries during the years 2007-2010.

# Trauma Facts



- For every trauma death in the United States ...
  - Approximately 10 people are hospitalized and transferred to specialized medical care.
  - 178 people are treated and released from hospital emergency departments.
- Problems posed by injury are most acute in our rural areas:
  - 60% of all trauma deaths occur in areas of the United States where only 25% of the population lives.

# Trauma Facts



- Indiana's special injury challenge is that we rank first in the nation for interstate highway miles per land area.
- And even though the death rate has decreased in the last 10 years, motor vehicle fatalities remain the No. 1 killer of Hoosiers ages 5-24.

# Trauma Lessons Learned



- When trauma patients are transported, by ground or air, to trauma centers:
  - The preventable death rate DROPS by 15-30%
  - There are significant reductions of chronic disabilities and overall community care costs.

# Indiana's Journey



## Trauma System Evolution:

- 2004 - Trauma System Advisory Task Force formed
- 2006 - IC 16-19-3-28 (Public Law 155) named the State Health Department the lead agency for statewide trauma system
- 2008 - American College of Surgeons conducted an evaluation of Indiana's trauma system

# Indiana's Journey



- 2009 - American College of Surgeons provided a set of recommendations for further development of Indiana's trauma system
- 2010 - Gov. Mitch Daniels created by executive order the Indiana State Trauma Care Committee
- 2011 - ISDH created the Trauma and Injury Prevention Division
- 2012 – EMS Commission adopted the Triage and Transport Rule
- 2013 – Preliminary ISDH adoption of the Trauma Registry Rule

# Where is Indiana?



- Indiana does not have an integrated statewide trauma system—one of only 6 states without one.
- Indiana has components of a system:
  - Emergency medical services (EMS) providers
  - Trauma centers (nine)
  - A trauma registry
  - Rehabilitation facilities



# Trauma Care System Components



- Data collection
  - EMS
  - Hospital
  - Rehabilitation
- Consistent, expert initial injury evaluation
  - Determines who should be immediately referred to a trauma center.
- Consistent transportation protocols
  - National expert guidelines determine when and how a patient is transported to a trauma center vs. a hospital emergency department.

# Trauma Care System Components

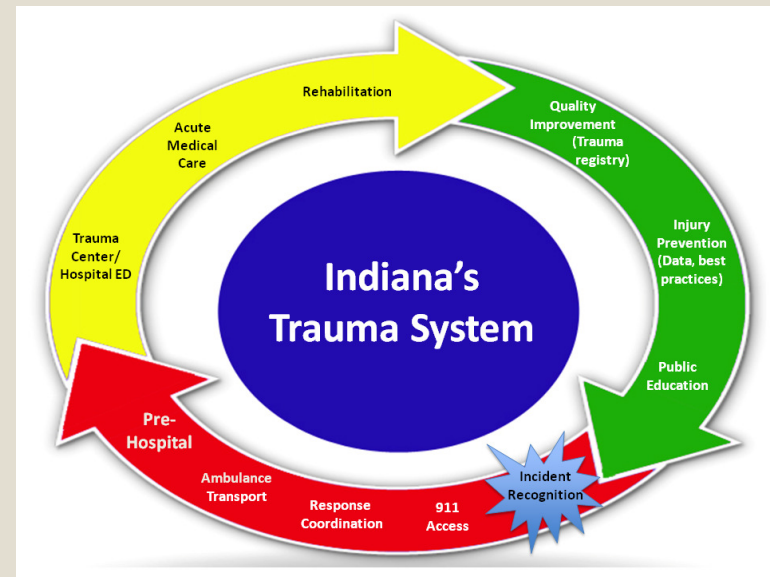


- National verification of trauma centers
  - Assures each trauma center is staffed and equipped appropriately.
- Performance improvement systems
  - Dynamic data registries to assess system improvement and outcomes.
- Education and policy development for injury prevention

# Trauma Registry Rule

- Rule that requires these providers to report data to the trauma registry:

- EMS providers
- All hospitals with EDs
- Rehabilitation hospitals



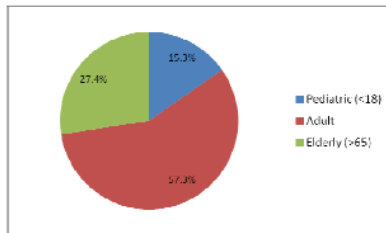
# Indiana Trauma Registry Reports

**Statewide**  
July 1, 2012 to Sept. 30, 2012  
4,951 Incidents

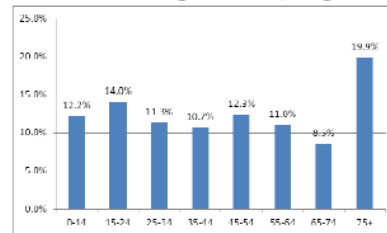
8 Trauma Centers  
26 (Non-Trauma) Hospitals

34 Total Hospitals  
Reporting

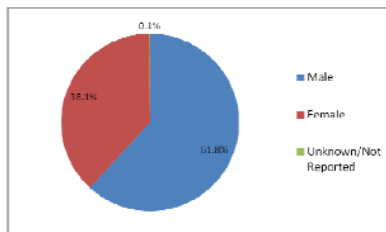
## Patient Age



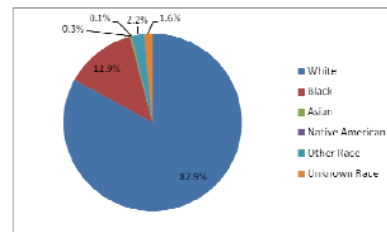
## Patient Age Groupings



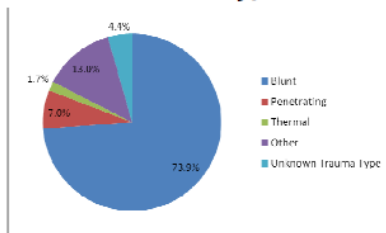
## Patient Gender



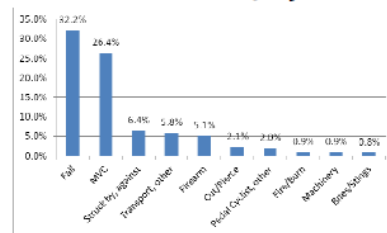
## Patient Race



## Trauma Type



## Cause of Injury



\* <0.5% COI: Pedestrian (Other), Natural/Environmental, Overexertion

- Reporting hospitals as of March 2013:
  - 9 trauma centers
  - 31 non-trauma centers
- 79,000 records

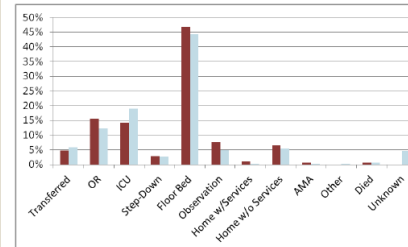
**July 1, 2012 to September 30, 2012**  
4,952 Incidents Statewide  
321 Incidents at Dummy Indiana Hospital  
W Score: 1.234 Rank (by W score): 10/25

Dummy Indiana Hospital

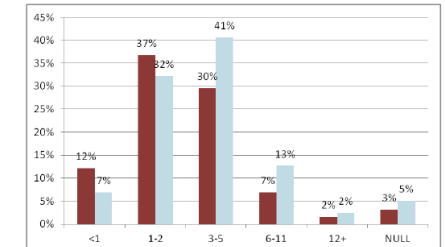
34 Total Hospitals  
Reporting

Dummy Indiana Hospital  
Indiana Total

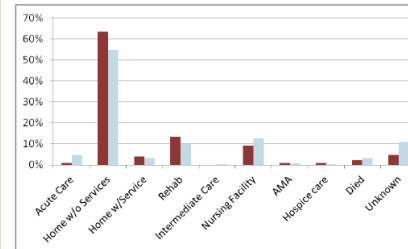
## ED Disposition



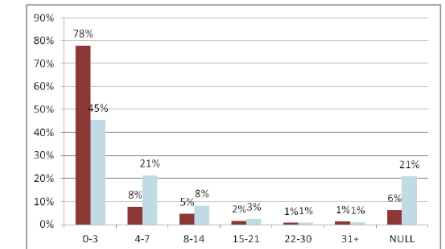
## ED Length of Stay (Hours)



## Hospital Disposition



## Hospital Length of Stay (Days)



# Give Us Back Our Data!



- Performance improvement
- Reports will encompass all aspects of pre-hospital
  - Comparison data: EMS provider and all others (aggregate)
- Link pre-hospital and hospital data re: patient outcomes
- Inventory management—meds, supplies, equipment
- Budgeting
  - Mileage
  - Overtime
  - Vehicle maintenance

# ISDH EMS Registry



- Indiana EMS database (NEMESIS v2.2.1 compliant)
- Pilot Project – THANK YOU!
  - AMR
  - Beech Grove FD
  - City of Lawrence FD
  - Decatur Township FD
  - DeKalb EMS
  - Delaware County / Muncie EMS
  - Fishers FD
  - Grant County EMS
  - Greenfield FD
  - Greenwood FD
  - Harrison County Hospital
  - Indianapolis EMS
  - King's Daughters' Hospital
  - Parkview Noble Hospital
  - Seals Ambulance Service
  - South Bend FD
  - Sugar Creek Township FD
  - Sullivan County Ambulance Service
  - Sullivan FD
  - Three Rivers Ambulance Service
  - Trans-Care, Inc.
  - Town of Plainfield / Plainfield FD
  - Washington Township / Avon FD

# ISDH EMS Registry



- Recruit EMS providers already collecting data electronically
  - We want your data
  - We will take as much as you are willing to share
  - We can take Fire House (Legacy) or NEMSIS data
  
- Training Tour—June and July
  - Recruit providers looking to move from paper to electronic
  - Explain the benefits of data collection
  - Provide free software to providers who want to upgrade to a NEMSIS compliant system

# Importance of Pre-hospital Data



- **Focus on data-driven decision making**
  - National push for quality improvement in healthcare
  - Tied to funding CDC, HRSA, NHTSA, etc.
  - Lower future healthcare costs
  - Preventable injuries
- **Identify unmet needs & priorities**
  - Pockets of healthcare disparities
  - Trends due to age, race, gender, etc.
- **Determine which treatments are effective**
  - Local medical directors know their population
  - Effective treatments or adjustments to training
  - Stocking medication or equipment based on known runs



# ISDH EMS Registry Reports

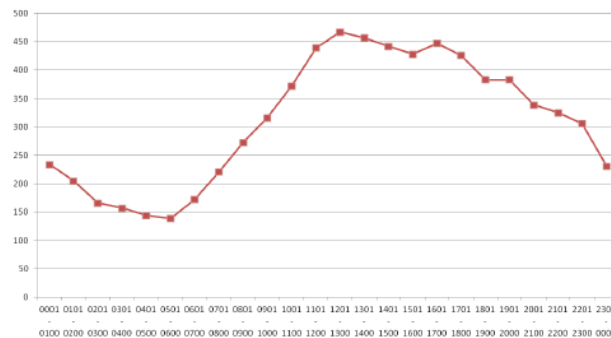


## Pre-Hospital Data Collected by Indiana State Department of Health

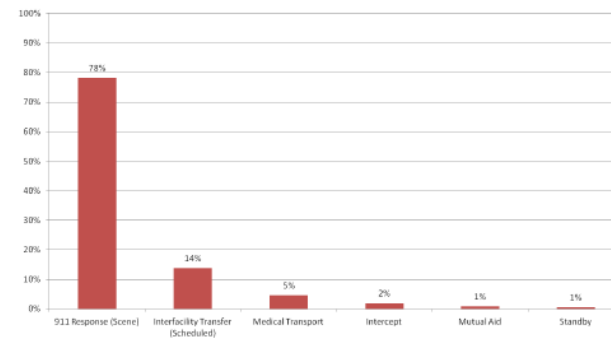
15 agencies committed to providing ePCR data to ISDH pilot program

7774 Incidences from Dec. 9, 2011 to Mar. 1, 2013

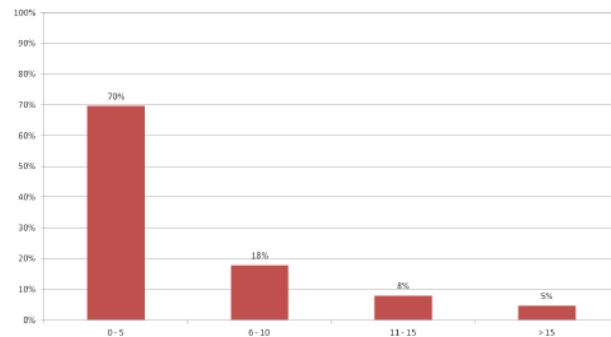
### Number of Runs by Hour



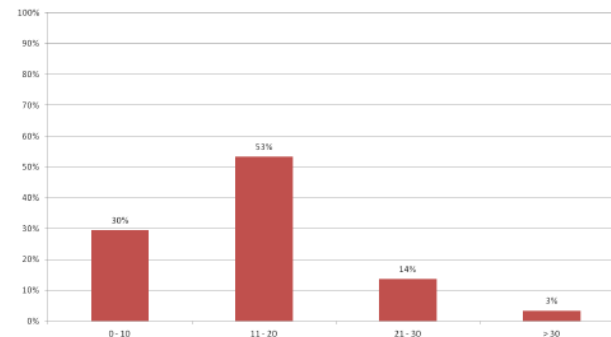
### Response Request



### Response Time in Minutes (From Dispatch to Scene)



### Scene Time in Minutes (From Scene Arrival to Scene Departure)



# Training Tour Details



- Training will be conducted by ISDH & ImageTrend
- Training on:
  - Setting up your service in the registry
  - Directly inputting EMS runs
  - Running reports
  - Electronically submitting data
- Goal 1: Train providers on the ISDH EMS database
- Goal 2: Show what data can do for you
- Goal 3: Provide a free system to providers to upgrade to NEMSIS

# Training Tour Details (continued)



## June 17 – 21

- 6/17 – Terre Haute
- 6/18 – Evansville
- 6/19 – Scottsburg
- 6/20 – Columbus
- 6/21 - Indianapolis

## July 22 - 26

- 7/22 – Muncie
- 7/23 – Fort Wayne
- 7/24 – South Bend
- 7/25 – Crown Point
- 7/26 – Lafayette

# Training Tour Details



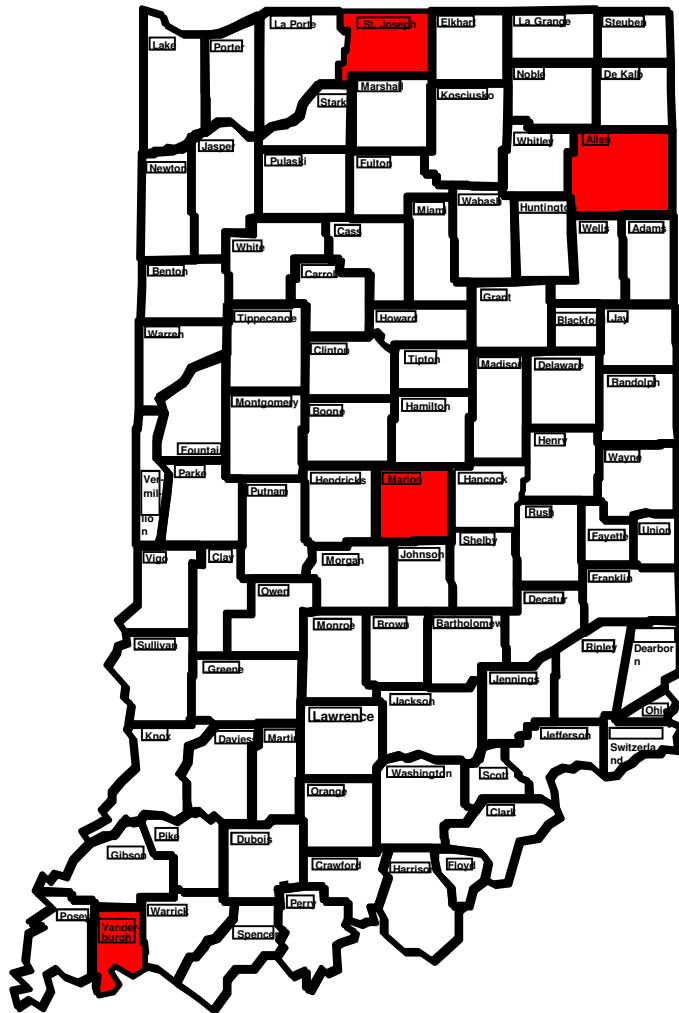
- All sessions are 3 hours (local time):
  - 9am-12pm
- OR
- 1:30pm-4:30pm
- Sign Up
  - At the ISDH booth
  - Online at: <https://indianatrauma.org>
    - ✦ Under the training tour link

# EMS Registry Timeline



- Summer 2012: Discussion of an EMS Registry
- December 2012: Meeting with EMS Commission Chairman & Vice-Chairman
- January 2013: Installed EMS database
- February 2013: Pilot project begins
- March 2013: Recruit electronic providers

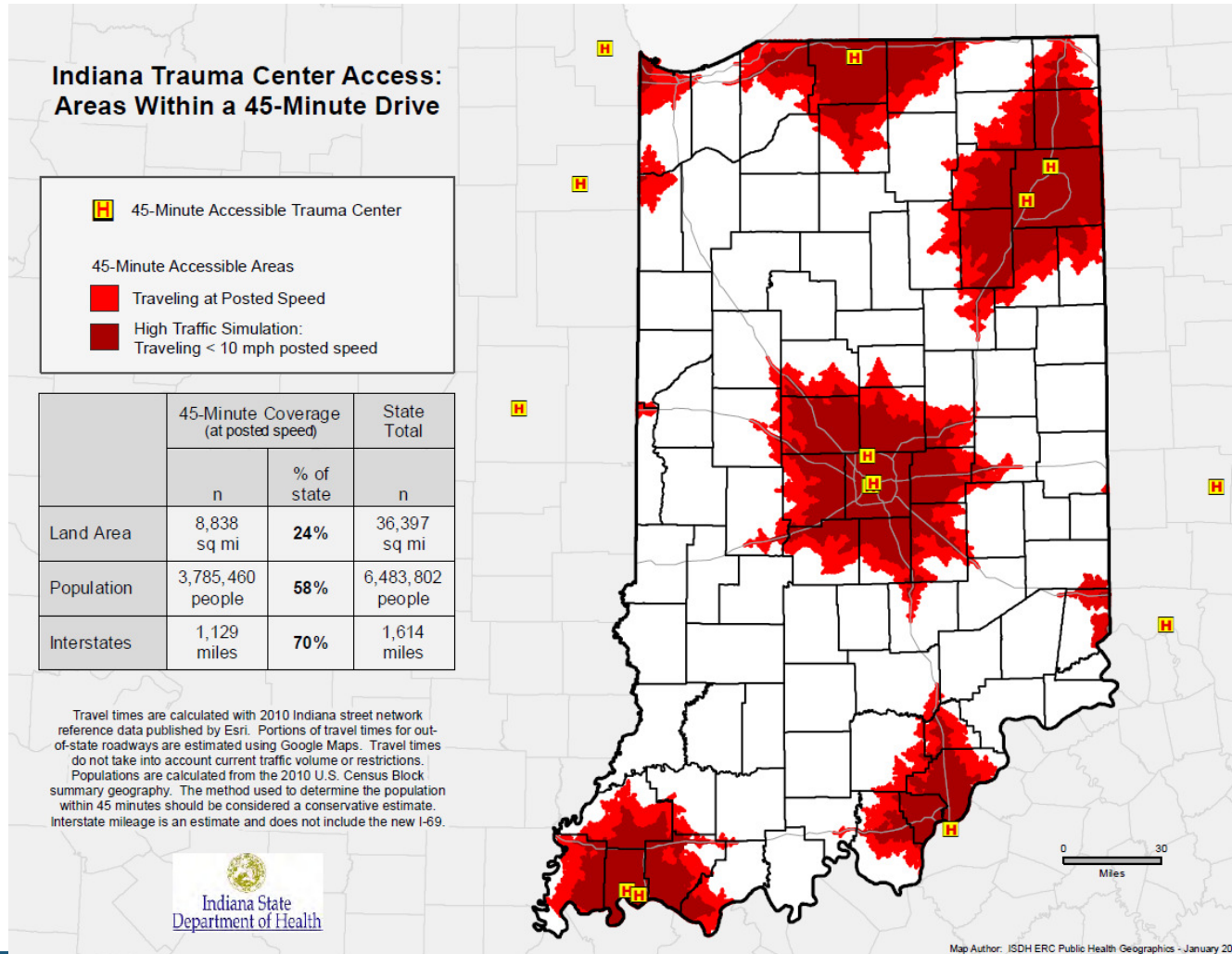
# Indiana Trauma Centers (Level I & II)



9 trauma centers  
1 South Bend  
2 Fort Wayne  
4 Indianapolis  
2 Evansville

(By comparison, Ohio has 45 trauma centers)

# Trauma Center Access in Indiana



# Triage & Transport Rule



- Requires most seriously injured patients to be taken to trauma centers.
- Also—permits hospitals to be considered “trauma centers” if the hospital is either:
  - Verified by the American College of Surgeons (ACS)
  - Designated a “trauma center” by a neighboring state’s trauma center designation system (if comparable to ACS’ system)
  - Or, “in the process of ACS verification”
- Hospitals that are truly “in the process” may apply to be considered a trauma center for purposes of this rule.



# In the process trauma centers



- EMS Commission knows EMS—not so much trauma center standards
  - Partnering with the Indiana State Trauma Care Committee (ISTCC)
  - ISTCC/State Health Commissioner will review the hospital's application
  - Recommend to the Commission whether the hospital should be considered a “trauma center” for this Rule's purposes.
- Providing additional Trauma Centers to which EMS providers may appropriately transport Step 1 and Step 2 patients.
- Available on the IDHS website.

# Furthermore . . . .



- Other aspects of “in the process” trauma centers:
  - \* Hospitals must provide sufficient documentation for the ISDH and IDHS to conclude that the hospital complies with a series of requirements.
  - \* The provisional trauma center status shall not exceed 2 years from the date the provisional status begins.
  - \* If the hospital is not able to become verified as a trauma center within that 2-year period:
    - \* Provisional status is revoked
    - \* Hospital can’t re-apply for at least 3 years.
- Effect—more trauma centers to which EMS may take seriously injured patients.

# In the Future



- Designation Rule

- Verified by American College of Surgeons
- Designated by State Department of Health
- Designated—asking Indiana trauma centers to “do a little extra”
- 2013 and 2014

# Trauma & Injury Prevention timeline



- April & May: Educational Tour
- May: Trauma Care Committee
- June: EMS Commission
- June & July: Training Tour
- August: Trauma Care Committee
- October: Optimal Course offered by ISDH

# EMS Database – Training Tour Registration



## Remember to Sign Up!

At the ISDH booth

or

Online at: [indianatrauma.org](http://indianatrauma.org)

Under the [training tour](#) link

# Conclusion



Thank you!

Questions?